magnitudes from a threshold for the lower gradation and in the order of decreasing magnitudes

from a threshold for the higher gradation.

Page 26, in the substitute specification please delete the 5<sup>th</sup> first full paragraph and

replace it with the following new paragraph:

If the low-frequency component is weighted according to human visual characteristics

and then extracted, the convolution process in a real space can also be used for the extraction

instead of filtering in a frequency space as described above.

Page 31, in the substitute specification please delete the 2nd first full paragraph and

replace it with the following new paragraph:

According to such a modification, in step S9 (third step) shown in FIG. 3, of the low-

frequency component data L at the respective unwhitening pixel positions calculated in step S8,

the position of a whitening candidate pixel whose value is greatest, ie., whose low-frequency

component data power value is strongest or whose low-frequency component intensity is

strongest, may be determined by the whitening pixel determining unit (corresponding to the

blackening pixel determining unit 46 in FIG. 2) as a pixel to be whitened next (whitening pixel).

In step S25 (second step) shown in FIG. 12, the position of a pixel whose low-frequency

component data is greatest (strongest) may be determined as the position of a pixel to be

whitened next.

Page 31, in the substitute specification please delete the 3rd first full paragraph and

replace it with the following new paragraph:

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In the meantime, only a certain dot arrangement (binary pattern, dot pattern, halftone dot configuration, white-and-black pattern) at a certain halftone percentage ( a threshold for a certain gradation) may be chosen as the most suitable dot arrangement by a certain method. Even in such case, threshold arrangements can be determined as follows.

**Page 32, in the substitute specification please delete the 1st first full paragraph and replace it with the following new paragraph:**

FIG. 13 is illustrative of a process of determining the position of the threshold Th at a higher gradation and the position of the threshold Tl at a lower gradation when the dot pattern of the threshold Tfix for a certain gradation has been determined.

**Page 32, in the substitute specification please delete the 2nd first full paragraph and replace it with the following new paragraph:**

The process shown in FIG. 13 includes steps S31 - S41 (A process Aa corresponds to step S35, a process Ba1 corresponds to step S37, a process Ba2 corresponds to step S38, and a process Ba3 corresponds to step S39) which are identical to steps S1 - S11 shown in FIG. 3, and steps S45 - S51 (A process Ab corresponds to step S45, a process Bb1 corresponds to step S47, a process Bb2 corresponds to step S48, and a process Bb3 corresponds to step S49) which are identical to steps S5 - S11 shown in FIG. 3. Therefore, these steps will not be described in detail below.

**Page 36, in the substitute specification please delete the 3rd first full paragraph and replace it with the following new paragraph:**

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